

# DYNAMIC BEHAVIORAL QUEUE CLASSIFICATION AND WEIGHTING

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## ABSTRACT

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The present invention defines a method and apparatus to extend class-based queuing (CBQ) with multiple "behavioral" queues per class, to include a dynamic weighting mechanism between these queues. The packets are forwarded from the behavioral queues according to the weighting assigned to each queue. The weighting for packet scheduling of the queues is adjusted to account for additional flow going through the queues. The weight of a queue is controlled relative to the weight available to other queues. When a flow is reclassified, the queue weights is readjusted accordingly. Well behaved flows experience low delay and can thus achieve a fair bandwidth allocation without having to have multiple packets queued to compete with non-adaptive aggressive flows.

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